

Claims

1. A Glycerol kinase which has high resistance against preservative.
2. The glycerol kinase according to claim 1, wherein the resistance against preservative expressed as a remaining activity ratio is 70% or more when the glycerol kinase coexists with the preservative at 25°C for one week.
3. The glycerol kinase according to claim 1 or 2, in which the preservative is N-methylisothiazolone and/or a derivative thereof.
4. The glycerol kinase according to claim 1, which is a protein of (a) or (b) below:
 - (a) a protein consisting of an amino acid sequence represented by SEQ ID NO:1 in the Sequence Listing; or
 - (b) a protein comprising an amino acid sequence of the amino acid sequence (a) in which one or several amino acids are deleted, substituted or added and having glycerol kinase activity.
5. A gene encoding a glycerol kinase which is a protein consisting of an amino acid represented by SEQ ID NO:1 in the Sequence Listing.

6. A gene encoding glycerol kinase consisting of DNA of (c) or (d) below:

(c) a DNA consisting of a nucleotide sequence represented by SEQ ID NO:2 in the Sequence Listing; or

(d) a DNA comprising a nucleotide sequence of the nucleotide sequence (c) wherein one or several nucleotides are added, deleted or substituted and encoding a protein having glycerol kinase activity.

7. A recombinant vector comprising a gene encoding the glycerol kinase according to any one of claims 1, 2 or 3.

8. A transformant comprising a host cell transformed with the recombinant vector according to claim 7.

9. A method for preparing a glycerol kinase, which comprises culturing the transformant according to claim 8 to produce a glycerol kinase, and collecting the glycerol kinase.